



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,792	02/05/2004	Phillip C. Cagle	200316243-1	5227
22879	7590	11/22/2006	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			SHOSHO, CALLIE E	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 11/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/772,792

Applicant(s)

CAGLE, PHILLIP C.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-18,22,23,25-32,36,37,39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-18,22,23,25-32,37,39 and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. All outstanding rejections except for those described below are overcome by applicant's amendment filed 8/25/06.

**Claim Rejections - 35 USC § 102**

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 12-16, 23, 25-30, 37, and 39-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinozuka et al. (U.S. 5,750,592).

The rejection is adequately set forth in paragraph 3 of the office action mailed 4/20/06 and is incorporated here by reference.

4. Claims 12-15, 17-18, 23, 25-29, 31-32, 37, and 39-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyabayashi '974 (U.S. 2004/0229974).

The rejection is adequately set forth in paragraph 5 of the office action mailed 4/20/06 and is incorporated here by reference.

5. Claims 12-15, 17-18, 23, 25-29, 31-32, 37, and 39-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Kubota et al. (U.S. 2003/0069329) taken in view of the evidence given in *Hawley's Condensed Chemical Dictionary*.

The rejection is adequately set forth in paragraph 6 of the office action mailed 4/20/06 and is incorporated here by reference.

**Claim Rejections - 35 USC § 103**

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 16 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyabayashi '974 (U.S. 2004/0229974) or Kubota et al. (U.S. 2003/0069329) either of which in view of either Miyamoto et al. (U.S. 2004/0055508) or Uemura et al. (U.S. 6,451,103)

The rejection is adequately set forth in paragraph 9 of the office action mailed 4/20/06 and is incorporated here by reference.

8. Claims 22 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyabayashi '974 (U.S. 2004/0229974) or Kubota et al. (U.S. 2003/0069329) either of which in view of Kato et al. (U.S. 6,536,890).

The rejection is adequately set forth in paragraph 10 of the office action mailed 4/20/06 and is incorporated here by reference.

**Response to Arguments**

9. Applicant's arguments regarding Cagle et al. (U.S. 2006/0007287), Miyabayashi '302 (U.S. 6,864,302), Lee (U.S. 2004/0024083), and Koga et al. (U.S. 6,786,586) have been fully considered but they are moot in view of the discontinuation of the use of these references against the present claims.

10. Applicant's arguments filed 8/25/06 have been fully considered but, with the exception of arguments relating to Cagle et al., Miyabayashi '302, Lee, and Koga et al., they are not persuasive.

Specifically, applicant argues that Shinozuka et al. fail to teach method of printing including a step of heating an image after it has been printed onto a substrate and fail to teach system including a heating element configured to perform such heating. Applicant argues that in Shinozuka et al. a transfer surface is heated not the print medium after printing that holds the permanent image.

However, it is noted that the present claims require system comprising (c) non-porous substrate configured for receiving ink jet ink upon printing and (d) heating element configured for heating the image once it is printed on the non-porous substrate and method comprising heating image once its printed onto the non-porous substrate.

Given that col.7, lines 37-45 of Shinozuka et al. disclose recording means, i.e. ink jet recording head, that ejects ink onto transfer drum to form ink image which is heated on the transfer drum by a heater, it is clear that Shinozuka et al. meet the requirements of the presently claimed system, i.e. transfer drum corresponding to above described (c) and heater

corresponding to above described (d) and the presently claimed method, i.e. heating image after the image is printed onto the drum. While it is agreed that it is the transfer drum that is heated and not the printing medium that holds the permanent image, there is nothing in the scope of the present claims that excludes the use of transfer surface as the non-porous substrate. The present claims only require non-porous substrate for receiving ink jet ink upon printing which corresponds to the transfer drum of Shinozuka et al. and heating once the ink is printed onto the non-porous substrate by a heating element which is also disclosed by Shinozuka et al. which disclose heating the transfer drum with heater after ink image is printed thereon. There is nothing in the scope of the present claims that requires that the non-porous substrate to be the final printing medium that holds the permanent image.

In light of the above, it is the examiner's position Shinozuka et al. remains a relevant reference against the present claims.

Applicant argues that there is no disclosure in Miyabayashi '974 of non-porous substrate as required in all the present claims.

However, attention is called to paragraph 376 of Miyabayashi '974 that discloses the use of non-porous substrate that is coated paper, which is identical to the non-porous substrate presently claimed (see claim 23).

Applicant argues that Kubota et al. is not a relevant reference against the present claims given that there is no disclosure in Kubota et al. of printing ink jet ink comprising polymer encapsulated pigment and acid functionalized colloid particulates dispersed in liquid vehicle

having volatile co-solvent wherein the image is heated after printing. As evidence to support this position, applicant points to examples of Kubota et al. that show ink comprising polymer encapsulated pigment but wherein such ink is not heated after printing or that show ink that is heated after printing but wherein the ink does not comprise polymer encapsulated pigment.

However, the examples are but a few preferred embodiments of Kubota et al. It is noted, “applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others,” *In re Courtright*, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). Further, “nonpreferred disclosures can be used. A nonpreferred portion of a reference disclosure is just as significant as the preferred portion in assessing the patentability of claims”, *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). A fair reading of Kubota et al. as a whole clearly discloses ink comprising polymer encapsulated pigment (paragraph 72), acid functionalized colloid particles (paragraphs 102, 112, and 117), and liquid vehicle (paragraphs 162-168) as presently claimed wherein the image formed from such ink is heated after printing (paragraphs 35 and 230).

In light of the above, it is the examiner’s position that Kubota et al. do disclose system and method as presently claimed and that Kubota et al. remains a relevant reference against the present claims.

### **Conclusion**

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

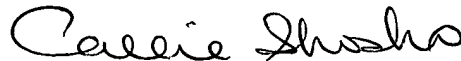
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
11/17/06